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10/653,926	09/04/2003	Naoki Hashimoto	Q77274	3647

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

ZEWDU, MELESS NMN

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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09/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/653,926

Applicant(s)

HASHIMOTO ET AL.

Examiner

Meless N. Zewdu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 18 is/are allowed.
- 6) ☒ Claim(s) 9-17 and 19-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is in response to the communication filed on 7/17/07.
2. Claims 1-25 are pending I this action.
3. In response to the instant amendment, claim rejections previously provided under the second paragraph of –35 USC § 112 and objections to claims 14, 19 and 20 has been withdrawn.
4. This action is final.

Claim Objections

Claim 9 is objected to because of the following informalities: the semi-colon or (;) at the end of line 7, next to the word “means”, is unnecessary and need to be cancelled. Appropriate correction is required.

Claims 9, 11, 16, 24 and 25 are objected to because of the following informalities: “storing --- when the packets are transmitted”, (see line 3), need to be changed into (if supported by the spec.), “before --- the packets are transmitted---”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In this regard, the claim recites "other than the prioritized packets", wherein what is the "other than" packet is not known, hence vague.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-11, 14, 16, 21, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milliken et al. (Milliken) (US 6,490,629 B1) and in view of Anderson et al. (Anderson) (US 6,262,979 B1) and Ohba et al. (Ohba) (US 6,609,316 B2).

As per claim 24: Milliken discloses a packet transmission method comprising (see title) the steps of:

sorting received packets (col. 6, lines 41-42; col. 1, line 66-col. 2, line 12) into prioritized packets (see col. 6, lines 38-40; col. 1, lines 42-49) and transmitting the

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sorted packets (see claims 12-13). But, Milliken does not explicitly teach about storing packets as non-prioritized packet, as claimed by applicant. However, in the same field of endeavor, Anderson teaches that packets can be sorted as priority and non-priority packets depending on the type of data (see col. 4, lines 10-23) and can be transmitted as multi-cast (see col. 2, lines 31-55). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Milliken with that of Anderson for the advantage of determining the order in which the packets are removed from memory (see col. 4, lines 19-22) and used for teleconferencing system comprising at least three telecommunication devices connected to a network and engaged in a concurrent telephonic communication (see col. 2, lines 7-10). Furthermore, Milliken in view of Anderson does not explicitly teach about encapsulating sorted/prioritized packets, as claimed by applicant. However, in the same field of endeavor, Ohba teaches about packet transfer method wherein a transmission unit of each node device transmits priority packet by encapsulating (see for instance, col. 10, lines 58-col. 11, line 22). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to further modify the teaching of Milliken in view of Anderson with that of Ohba for the advantage of putting (multiplexing) an IP packet with another IP packet (see col. 11, lines 32-38).

As per claim 25: the features of claim 25 are similar to the features of claim 24, except accumulating sorted prioritized packets, which is disclosed by Milliken (see claim 8).

Storing/queuing is commensurate with accumulating. Therefore, claim 25 is rejected on the same ground and motivation as claim 24.

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As per claim 9: “a base station” in the preamble is considered as an intended use, since it does not enhance/ development the body of the claim. With all other respects, claim 9 is similar to the features of claims 24 and 25, except claim 9 is directed to a means required for performing the steps of claims 24 and 25, which are obviated by the prior art of record, as discussed above. Hence, since the method is taught and the means is required by the method, the means of claim 9 must be an obvious feature within the embodiment of the prior art. Therefore, claim 9 is rejected on the same ground and motivation as claims 24 and 25.

As per claim 10: the features of claim 10 are similar to the features of claims 24 and 25, except claim 10 includes two difference features: (1) a wireless LAN, which is an intended use and haven't been given a patentable weight; (2) capsulating means for capsulating the packets, which is taught by the prior art of record, as discussed in the rejection of claim 24 above. Hence, claim 10 is rejected on the same ground and motivation as claim 24 and 25.

As per claim 11: the features of claim 11 are similar to the features of claim 24, except claim 11 is directed to a system required to carry-out the steps of claim 24. Hence, claim 11 is rejected on the same ground and motivation as claim 24.

As per claim 14: when the references are modified as shown in the rejection of claim 24, the modified packet transmission system will include a sorting means that sets queues to non-prioritized packets (see col. 10, line 58-col. 11, line 22) for every MAC address, as taught by Anderson (see col. 6, lines 35-55).

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As per claim 16: the features of claim 16 are similar to the features of claims 9. Hence, claim 16 is rejected on the same ground and motivation, as claim 9.

As per claim 21: the feature of claim 21 is similar to the feature of claim 14. Hence, claim 21 is rejected on the same ground as claim 14. The phrase, "other than the prioritized packets" is indeterminate since what is "other than" is not known.

Claims 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references applied to claims 11 and 16 above, and further in view of Steiner et al. (Steiner) (US 6,529,519 B1).

As per claim 12: but, the references applied to claims 11 and 16 above, do not explicitly teach about moving pictures and voice packets. However, in the same field of endeavor, data packets corresponding to respective types of services (wherein types of services is interpreted as services that can include voice and moving picture) having respective quality of service requirements (wherein quality of service is interpreted as commensurate with priority) priorities) and the memory system is prioritized buffer for containing data packets sorted in accordance with the respective quality of service requirements of the type of traffic to which the packets correspond (see col. 4, lines 1-11). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of the above references with that of Steiner for the advantage of managing a prioritized buffer for stream data organized in fixed size packets or cells, as may be employed in wireless multimedia applications (see col. 1, lines 10-13).

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As per claim 19: the references applied to claims 11 and 16 teach the features of claim 19, except the "moving picture and voice packets", which are taught by Steiner, as discussed in the rejection of claim 12 above. Hence, claim 19 is rejected on the same ground and motivation as claim 12.

Claims 13, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milliken, as applied to claims 11 and 16 above, and further in view of Kobayash (US 6,977,896 B1).

As per claim 13: as discussed above, Milliken discloses sorting means that sorts the received packets into prioritized packets. But Milliken does not explicitly teach about – only when the received packets are UDP and IP ports coincide with IP ports registered in advance respectively. However, in the same field of endeavor, Kobayashi teaches about IP communication network, wherein the QoS guarantee target packets are sorted, out by use of UDP port and the IP address, and thereafter the packets may be encapsulated and the\us transferred (see col. 8, lines 33-53; col. 7, lines 42-61).

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Milliken with that of Kobayashi for the advantage of providing an IP communications network system and a QoS guaranteeing apparatus which is capable of guaranteeing the QoS as to a delay (see col. 2, lines 50-57).

As per claim 20: the feature of claim 20 is similar to the feature of claim 13. Hence, claim 20 is rejected on the same ground and motivation as claim 13.

Claims 15, 17, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references applied to claims 11 and 16 above, and further in view of Arimilli (US 5,757,801).

As per claim 15: the feature of claim 15 is similar to the feature of claim 9, except general packets being respectively interrupted, as claimed by applicant. However, in the same field of endeavor, Arimilli teaches about advanced priority statistical multiplexer wherein low priority data transmission is interrupted when higher data is ready for transmission (see col. 28, lines 22-29). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of the above references with that of Arimilli for the advantage of assuring predictable and minimal delay of higher priority packets (see col. 28, lines 22-29).

As per claim 17: but, the above references do not explicitly teach about matching the capsulating packet with CODEC period, as claimed by applicant. However, Arimilli teaches that asynchronous (low priority) data can be transmitted in lieu of voice data by detecting quiet interval in the speech signal (see col. 12, lines 32-40; col. 23, lines 1-58). The CODEC is obvious from the code book used in Arimilli's reference. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of the above references with that of Arimilli for the advantage of detecting quiet intervals in a speech signal so as to allow data transmission in lieu of the interrupted speech signal (see col. 12, lines 32-40).

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As per claim 22: Arimilli teaches about a packet transmission system wherein a period of said transmitting means is counted by an interval timer (see col. 12, lines 32-40; col. 17, lines 1-12; col. 33, lines 40-57).

As per claim 23: the feature of claim 23 is similar to the feature of claim 15. Hence, claim 23 is rejected on the same ground and motivation as claim 15.

Allowable Subject Matter

Claims 1-8 and 18 are allowed.

The following is an examiner's statement of reasons for allowance:

As per claims 1-8 and 18: the claims are directed to packet transmission. The prior art of record does not fairly teach or suggest means for sorting packets into prioritized and non-prioritized packets, accumulating the prioritized packets, capsulating the accumulated packets and transmitting the capsulating packets in a wireless LAN network, between a base station and a wireless LAN terminal, as recited, particularly in claim 1, and a packet transmission system with means for sorting received packets into prioritized and non-prioritized packets, accumulating the prioritized packets, capsulating the accumulated packets and transmitting the capsulated packets, wherein a transmitting means transmits the capsulated packets with a defined CODEC period, as recited in claim 18.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N. Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Appiah Charles can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Meless zewdu



Primary Examiner

09 September 2007.